ABSTRACT

A reflective grating for precision location measurement is disclosed. In one embodiment, the reflective grating has a non-reflective substrate and a non-reflective adhesion layer disposed on the substrate layer. A reflective surface layer is disposed on the adhesion layer. In another embodiment, the reflective grating is manufactured on the reflective (polished) surface of a monolithic substrate. A series of grating lines are formed in the reflective surface layer by vaporizing portions of the reflective surface layer with a laser in order to expose the non-reflective adhesion layer. Accordingly, alternating reflective and non-reflective grating lines are formed that are used for making precision measurements.